



SEQUENCE LISTING

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<120> GRB14 AND THE INSULIN RECEPTOR AND SCREENING OF NOVEL MEDICINES

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<160> 28

<170> PatentIn Ver. 2.1

<210> 1

<211> 43

<212> PRT

<213> Rattus sp.

<400> 1

Pro Met Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
1 5 10 15

Gly Gln Lys Thr Arg Val Ile Asp Asn Pro Thr Glu Ala Leu Ser Val
20 25 30

Ala Val Glu Glu Gly Leu Ala Trp Arg Lys Lys
35 40

<210> 2

<211> 84

<212> PRT

<213> Rattus sp.

<400> 2

Gln Ala Arg Ser Ala Cys Ser Ser Gln Ser Val Ser Pro Met Arg Ser
1 5 10 15

Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Lys Thr
20 25 30

Arg Val Ile Asp Asn Pro Thr Glu Ala Leu Ser Val Ala Val Glu Glu
35 40 45

Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu Gly Asn His Gly
50 55 60

Ser Pro Thr Ala Pro Ser Gln Ser Ser Ala Val Asn Met Ala Leu His
65 70 75 80

Arg Ser Gln Pro

<210> 3
 <211> 174
 <212> PRT
 <213> Rattus sp.

<400> 3
 Pro Met Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly Gln Lys Thr Arg Val Ile Asp Asn Pro Thr Glu Ala Leu Ser Val
 20 25 30
 Ala Val Glu Glu Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu
 35 40 45
 Gly Asn His Gly Ser Pro Thr Ala Pro Ser Gln Ser Ser Ala Val Asn
 50 55 60
 Met Ala Leu His Arg Ser Gln Pro Trp Phe His His Arg Ile Ser Arg
 65 70 75 80
 Asp Glu Ala Gln Gln Leu Ile Thr Arg Gln Gly Pro Val Asp Gly Val
 85 90 95
 Phe Leu Val Arg Asp Ser Gln Ser Asn Pro Arg Thr Phe Val Leu Ser
 100 105 110
 Met Ser His Gly Gln Lys Ile Lys His Phe Gln Ile Ile Pro Val Glu
 115 120 125
 Asp Asp Gly Glu Val Phe His Thr Leu Asp Asp Gly His Thr Lys Phe
 130 135 140
 Thr Asp Leu Ile Gln Leu Val Glu Phe Tyr Gln Leu Asn Lys Gly Val
 145 150 155 160
 Leu Pro Cys Lys Leu Lys His Tyr Cys Ala Arg Met Ala Val
 165 170

B1

<210> 4
 <211> 186
 <212> PRT
 <213> Rattus sp.

<400> 4
 Gln Ala Arg Ser Ala Cys Ser Ser Gln Ser Val Ser Pro Met Arg Ser
 1 5 10 15
 Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Lys Thr
 20 25 30
 Arg Val Ile Asp Asn Pro Thr Glu Ala Leu Ser Val Ala Val Glu Glu
 35 40 45
 Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu Gly Asn His Gly
 50 55 60

Ser Pro Thr Ala Pro Ser Gln Ser Ser Ala Val Asn Met Ala Leu His
 65 70 75 80
 Arg Ser Gln Pro Trp Phe His His Arg Ile Ser Arg Asp Glu Ala Gln
 85 90 95
 Gln Leu Ile Thr Arg Gln Gly Pro Val Asp Gly Val Phe Leu Val Arg
 100 105 110
 Asp Ser Gln Ser Asn Pro Arg Thr Phe Val Leu Ser Met Ser His Gly
 115 120 125
 Gln Lys Ile Lys His Phe Gln Ile Ile Pro Val Glu Asp Asp Gly Glu
 130 135 140
 Val Phe His Thr Leu Asp Asp Gly His Thr Lys Phe Thr Asp Leu Ile
 145 150 155 160
 Gln Leu Val Glu Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro Cys Lys
 165 170 175
 Leu Lys His Tyr Cys Ala Arg Met Ala Val
 180 185

B1

<210> 5
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 5
 Pro Met Arg Ser Ile Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly Gln Lys Ser Arg Val Ile Glu Asn Pro Thr Glu Ala Leu Ser Val
 20 25 30
 Ala Val Glu Glu Gly Leu Ala Trp Arg Lys Lys
 35 40

<210> 6
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 6
 Gln Gly Arg Ser Gly Cys Ser Ser Gln Ser Ile Ser Pro Met Arg Ser
 1 5 10 15
 Ile Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Lys Ser
 20 25 30
 Arg Val Ile Glu Asn Pro Thr Glu Ala Leu Ser Val Ala Val Glu Glu
 35 40 45
 Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu Gly Thr His Gly
 50 55 60

Ser Pro Thr Ala Ser Ser Gln Ser Ser Ala Thr Asn Met Ala Ile His
65 70 75 80

Arg Ser Gln Pro

<210> 7
<211> 174
<212> PRT
<213> Homo sapiens

<400> 7
Pro Met Arg Ser Ile Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
1 5 10 15

Gly Gln Lys Ser Arg Val Ile Glu Asn Pro Thr Glu Ala Leu Ser Val
20 25 30

Ala Val Glu Glu Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu
35 40 45

Gly Thr His Gly Ser Pro Thr Ala Ser Ser Gln Ser Ser Ala Thr Asn
50 55 60

Met Ala Ile His Arg Ser Gln Pro Trp Phe His His Lys Ile Ser Arg
65 70 75 80

Asp Glu Ala Gln Arg Leu Ile Ile Gln Gln Gly Leu Val Asp Gly Val
85 90 95

Phe Leu Val Arg Asp Ser Gln Ser Asn Pro Lys Thr Phe Val Leu Ser
100 105 110

Met Ser His Gly Gln Lys Ile Lys His Phe Gln Ile Ile Pro Val Glu
115 120 125

Asp Asp Gly Glu Met Phe His Thr Leu Asp Asp Gly His Thr Arg Phe
130 135 140

Thr Asp Leu Ile Gln Leu Val Glu Phe Tyr Gln Leu Asn Lys Gly Val
145 150 155 160

Leu Pro Cys Lys Leu Lys His Tyr Cys Ala Arg Ile Ala Leu
165 170

<210> 8
<211> 186
<212> PRT
<213> Homo sapiens

<400> 8
Gln Gly Arg Ser Gly Cys Ser Ser Gln Ser Ile Ser Pro Met Arg Ser
1 5 10 15

Ile Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Lys Ser
20 25 30

Arg Val Ile Glu Asn Pro Thr Glu Ala Leu Ser Val Ala Val Glu Glu
 35 40 45
 Gly Leu Ala Trp Arg Lys Lys Gly Cys Leu Arg Leu Gly Thr His Gly
 50 55 60
 Ser Pro Thr Ala Ser Ser Gln Ser Ser Ala Thr Asn Met Ala Ile His
 65 70 75 80
 Arg Ser Gln Pro Trp Phe His His Lys Ile Ser Arg Asp Glu Ala Gln
 85 90 95
 Arg Leu Ile Ile Gln Gln Gly Leu Val Asp Gly Val Phe Leu Val Arg
 100 105 110
 Asp Ser Gln Ser Asn Pro Lys Thr Phe Val Leu Ser Met Ser His Gly
 115 120 125
 Gln Lys Ile Lys His Phe Gln Ile Ile Pro Val Glu Asp Asp Gly Glu
 130 135 140
 Met Phe His Thr Leu Asp Asp Gly His Thr Arg Phe Thr Asp Leu Ile
 145 150 155 160
 Gln Leu Val Glu Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro Cys Lys
 165 170 175
 Leu Lys His Tyr Cys Ala Arg Ile Ala Leu
 180 185

(3)

<210> 9
 <211> 43
 <212> PRT
 <213> mus muris

<400> 9
 Pro Met Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly Gln Ile Gly Arg Val Ile Asp Asn Pro Ala Glu Ala Gln Ser Ala
 20 25 30
 Ala Leu Glu Glu Gly His Ala Trp Arg Asn Gly
 35 40

<210> 10
 <211> 82
 <212> PRT
 <213> mus muris

<400> 10
 Pro Gln Arg Lys Gly Leu Pro Pro Pro Phe Asn Ala Pro Met Arg Ser
 1 5 10 15
 Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Ile Gly
 20 25 30

Arg Val Ile Asp Asn Pro Ala Glu Ala Gln Ser Ala Ala Leu Glu Glu
35 40 45

Gly His Ala Trp Arg Asn Gly Ser Thr Arg Met Asn Ile Leu Ser Ser
50 55 60

Gln Ser Pro Leu His Pro Ser Thr Leu Asn Ala Val Ile His Arg Thr
65 70 75 80

Gln His

<210> 11

<211> 172

<212> PRT

<213> mus muris

<400> 11

Pro Met Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
1 5 10 15

Gly Gln Ile Gly Arg Val Ile Asp Asn Pro Ala Glu Ala Gln Ser Ala
20 25 30

Ala Leu Glu Glu Gly His Ala Trp Arg Asn Gly Ser Thr Arg Met Asn
35 40 45

Ile Leu Ser Ser Gln Ser Pro Leu His Pro Ser Thr Leu Asn Ala Val
50 55 60

Ile His Arg Thr Gln His Trp Phe His Gly Arg Ile Ser Arg Glu Glu
65 70 75 80

Ser His Arg Ile Ile Lys Gln Gln Gly Leu Val Asp Gly Leu Phe Leu
85 90 95

Leu Arg Asp Ser Gln Ser Asn Pro Lys Ala Phe Val Leu Thr Leu Cys
100 105 110

His His Gln Lys Ile Lys Asn Phe Gln Ile Leu Pro Cys Glu Asp Asp
115 120 125

Gly Gln Thr Phe Phe Thr Leu Asp Asp Gly Asn Thr Lys Phe Ser Asp
130 135 140

Leu Ile Gln Leu Val Asp Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro
145 150 155 160

Cys Lys Leu Lys His His Cys Ile Arg Val Ala Leu
165 170

<210> 12

<211> 184

<212> PRT

<213> mus muris

<400> 12

Pro Gln Arg Lys Gly Leu Pro Pro Pro Phe Asn Ala Pro Met Arg Ser
 1 5 10 15
 Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Ile Gly
 20 25 30
 Arg Val Ile Asp Asn Pro Ala Glu Ala Gln Ser Ala Ala Leu Glu Glu
 35 40 45
 Gly His Ala Trp Arg Asn Gly Ser Thr Arg Met Asn Ile Leu Ser Ser
 50 55 60
 Gln Ser Pro Leu His Pro Ser Thr Leu Asn Ala Val Ile His Arg Thr
 65 70 75 80
 Gln His Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser His Arg Ile
 85 90 95
 Ile Lys Gln Gln Gly Leu Val Asp Gly Leu Phe Leu Leu Arg Asp Ser
 100 105 110
 Gln Ser Asn Pro Lys Ala Phe Val Leu Thr Leu Cys His His Gln Lys
 115 120 125
 Ile Lys Asn Phe Gln Ile Leu Pro Cys Glu Asp Asp Gly Gln Thr Phe
 130 135 140
 Phe Thr Leu Asp Asp Gly Asn Thr Lys Phe Ser Asp Leu Ile Gln Leu
 145 150 155 160
 Val Asp Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro Cys Lys Leu Lys
 165 170 175
 His His Cys Ile Arg Val Ala Leu
 180

<210> 13
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 13
 Pro Val Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly Gln Thr Gly Arg Val Ile Glu Asn Pro Ala Glu Ala Gln Ser Ala
 20 25 30
 Ala Leu Glu Glu Gly His Ala Trp Arg Lys Arg
 35 40

<210> 14
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 14

Gln Gln Arg Lys Ala Leu Leu Ser Pro Phe Ser Thr Pro Val Arg Ser
 1 5 10 15
 Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Thr Gly
 20 25 30
 Arg Val Ile Glu Asn Pro Ala Glu Ala Gln Ser Ala Ala Leu Glu Glu
 35 40 45
 Gly His Ala Trp Arg Lys Arg Ser Thr Arg Met Asn Ile Leu Gly Ser
 50 55 60
 Gln Ser Pro Leu His Pro Ser Thr Leu Ser Thr Val Ile His Arg Thr
 65 70 75 80
 Gln His

<210> 15
 <211> 172
 <212> PRT
 <213> Homo sapiens

B1
 <400> 15
 Pro Val Arg Ser Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly Gln Thr Gly Arg Val Ile Glu Asn Pro Ala Glu Ala Gln Ser Ala
 20 25 30
 Ala Leu Glu Glu Gly His Ala Trp Arg Lys Arg Ser Thr Arg Met Asn
 35 40 45
 Ile Leu Gly Ser Gln Ser Pro Leu His Pro Ser Thr Leu Ser Thr Val
 50 55 60
 Ile His Arg Thr Gln His Trp Phe His Gly Arg Phe Ser Arg Glu Glu
 65 70 75 80
 Ser His Arg Ile Ile Lys Gln Gln Gly Leu Val Asp Gly Leu Phe Leu
 85 90 95
 Leu Arg Asp Ser Gln Ser Asn Pro Lys Ala Phe Val Leu Thr Leu Cys
 100 105 110
 His His Gln Lys Ile Lys Asn Phe Gln Ile Leu Pro Cys Glu Asp Asp
 115 120 125
 Gly Gln Thr Phe Phe Ser Leu Asp Asp Gly Asn Thr Lys Phe Ser Asp
 130 135 140
 Leu Ile Gln Leu Val Asp Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro
 145 150 155 160
 Cys Lys Leu Lys His His Cys Ile Arg Val Ala Leu
 165 170

<210> 16
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 16
 Gln Gln Arg Lys Ala Leu Leu Ser Pro Phe Ser Thr Pro Val Arg Ser
 1 5 10 15
 Val Ser Glu Asn Ser Leu Val Ala Met Asp Phe Ser Gly Gln Thr Gly
 20 25 30
 Arg Val Ile Glu Asn Pro Ala Glu Ala Gln Ser Ala Ala Leu Glu Glu
 35 40 45
 Gly His Ala Trp Arg Lys Arg Ser Thr Arg Met Asn Ile Leu Gly Ser
 50 55 60
 Gln Ser Pro Leu His Pro Ser Thr Leu Ser Thr Val Ile His Arg Thr
 65 70 75 80
 Gln His Trp Phe His Gly Arg Phe Ser Arg Glu Glu Ser His Arg Ile
 85 90 95
 Ile Lys Gln Gln Gly Leu Val Asp Gly Leu Phe Leu Leu Arg Asp Ser
 100 105 110
 Gln Ser Asn Pro Lys Ala Phe Val Leu Thr Leu Cys His His Gln Lys
 115 120 125
 Ile Lys Asn Phe Gln Ile Leu Pro Cys Glu Asp Asp Gly Gln Thr Phe
 130 135 140
 Phe Ser Leu Asp Asp Gly Asn Thr Lys Phe Ser Asp Leu Ile Gln Leu
 145 150 155 160
 Val Asp Phe Tyr Gln Leu Asn Lys Gly Val Leu Pro Cys Lys Leu Lys
 165 170 175
 His His Cys Ile Arg Val Ala Leu
 180

<210> 17
 <211> 43
 <212> PRT
 <213> Rattus sp.

<400> 17
 Pro Leu Arg Ser Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly His Ala Gly Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala
 20 25 30
 Ala Met Glu Glu Ala Gln Ala Trp Arg Lys Lys
 35 40

<210> 18'
 <211> 80
 <212> PRT
 <213> Rattus sp.

<400> 18
 Ser Arg His Leu Arg Leu Ser Tyr Leu Gly Ser Pro Pro Leu Arg Ser
 1 5 10 15
 Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
 20 25 30
 Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala Ala Met Glu Glu
 35 40 45
 Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Thr
 50 55 60
 Thr Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His Arg Thr Gln Pro
 65 70 75 80

<210> 19
 <211> 170
 <212> PRT
 <213> Rattus sp.

B1
 <400> 19
 Pro Leu Arg Ser Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly His Ala Gly Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala
 20 25 30
 Ala Met Glu Glu Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu
 35 40 45
 Ser Leu Pro Thr Thr Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His
 50 55 60
 Arg Thr Gln Pro Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln
 65 70 75 80
 Arg Leu Ile Gly Gln Gln Gly Leu Val Asp Gly Val Phe Leu Val Arg
 85 90 95
 Glu Ser Gln Arg Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu
 100 105 110
 Gln Lys Val Lys His Tyr Leu Ile Leu Pro Ser Glu Asp Glu Gly Cys
 115 120 125
 Leu Tyr Phe Ser Met Asp Glu Gly Gln Thr Arg Phe Thr Asp Leu Leu
 130 135 140
 Gln Leu Val Glu Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu
 145 150 155 160
 Leu Arg His Cys Cys Ala Arg Val Ala Leu
 165 170

<210> 20
 <211> 182
 <212> PRT
 <213> Rattus sp.

<400> 20
 Ser Arg His Leu Arg Leu Ser Tyr Leu Gly Ser Pro Pro Leu Arg Ser
 1 5 10 15
 Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
 20 25 30
 Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala Ala Met Glu Glu
 35 40 45
 Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Thr
 50 55 60
 Thr Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His Arg Thr Gln Pro
 65 70 75 80
 Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln Arg Leu Ile Gly
 85 90 95
 Gln Gln Gly Leu Val Asp Gly Val Phe Leu Val Arg Glu Ser Gln Arg
 100 105 110
 Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu Gln Lys Val Lys
 115 120 125
 His Tyr Leu Ile Leu Pro Ser Glu Asp Glu Gly Cys Leu Tyr Phe Ser
 130 135 140
 Met Asp Glu Gly Gln Thr Arg Phe Thr Asp Leu Leu Gln Leu Val Glu
 145 150 155 160
 Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu Leu Arg His Cys
 165 170 175
 Cys Ala Arg Val Ala Leu
 180

<210> 21
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 21
 Pro Leu Arg Ser Ala Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly His Ala Gly Arg Val Ile Glu Asn Pro Arg Glu Ala Leu Ser Val
 20 25 30
 Ala Leu Glu Glu Ala Gln Ala Trp Arg Lys Lys
 35 40

<210> 22
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 22
 Ser Arg His Leu His Pro Ser Cys Leu Gly Ser Pro Pro Leu Arg Ser
 1 5 10 15
 Ala Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
 20 25 30
 Arg Val Ile Glu Asn Pro Arg Glu Ala Leu Ser Val Ala Leu Glu Glu
 35 40 45
 Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Met
 50 55 60
 Pro Ala Ser Gly Thr Ser Leu Ser Ala Ala Ile His Arg Thr Gln Leu
 65 70 75 80

B1

<210> 23
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 23
 Pro Leu Arg Ser Ala Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
 1 5 10 15
 Gly His Ala Gly Arg Val Ile Glu Asn Pro Arg Glu Ala Leu Ser Val
 20 25 30
 Ala Leu Glu Glu Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu
 35 40 45
 Ser Leu Pro Met Pro Ala Ser Gly Thr Ser Leu Ser Ala Ala Ile His
 50 55 60
 Arg Thr Gln Leu Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln
 65 70 75 80
 Arg Leu Ile Gly Gln Gln Gly Leu Val Asp Gly Leu Phe Leu Val Arg
 85 90 95
 Glu Ser Gln Arg Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu
 100 105 110
 Gln Lys Val Lys His Tyr Leu Ile Leu Pro Ser Glu Glu Gly Arg
 115 120 125
 Leu Tyr Phe Ser Met Asp Asp Gly Gln Thr Arg Phe Thr Asp Leu Leu
 130 135 140
 Gln Leu Val Glu Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu
 145 150 155 160

Leu Arg His Cys Cys Thr Arg Val Ala Leu
165 170

<210> 24
<211> 182
<212> PRT
<213> Homo sapiens

<400> 24
Ser Arg His Leu His Pro Ser Cys Leu Gly Ser Pro Pro Leu Arg Ser
1 5 10 15
Ala Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
20 25 30
Arg Val Ile Glu Asn Pro Arg Glu Ala Leu Ser Val Ala Leu Glu Glu
35 40 45
Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Met
50 55 60
Pro Ala Ser Gly Thr Ser Leu Ser Ala Ala Ile His Arg Thr Gln Leu
65 70 75 80
Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln Arg Leu Ile Gly
85 90 95
Gln Gln Gly Leu Val Asp Gly Leu Phe Leu Val Arg Glu Ser Gln Arg
100 105 110
Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu Gln Lys Val Lys
115 120 125
His Tyr Leu Ile Leu Pro Ser Glu Glu Glu Gly Arg Leu Tyr Phe Ser
130 135 140
Met Asp Asp Gly Gln Thr Arg Phe Thr Asp Leu Leu Gln Leu Val Glu
145 150 155 160
Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu Leu Arg His Cys
165 170 175
Cys Thr Arg Val Ala Leu
180

<210> 25
<211> 43
<212> PRT
<213> mus muris

<400> 25
Pro Leu Arg Ser Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
1 5 10 15
Gly His Ala Gly Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala
20 25 30

Ala Met Glu Glu Ala Gln Ala Trp Arg Lys Lys
35 40

<210> 26
<211> 80
<212> PRT
<213> mus muris

<400> 26
Ser Arg His Leu Arg Leu Ser Tyr Leu Gly Ser Pro Pro Leu Arg Ser
1 5 10 15
Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
20 25 30
Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala Ala Met Glu Glu
35 40 45
Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Thr
50 55 60
Thr Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His Arg Thr Gln Pro
65 70 75 80

β1

<210> 27
<211> 170
<212> PRT
<213> mus muris

<400> 27
Pro Leu Arg Ser Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser
1 5 10 15
Gly His Ala Gly Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala
20 25 30
Ala Met Glu Glu Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu
35 40 45
Ser Leu Pro Thr Thr Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His
50 55 60
Arg Thr Gln Pro Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln
65 70 75 80
Arg Leu Ile Gly Gln Gln Gly Leu Val Asp Gly Val Phe Leu Val Arg
85 90 95
Glu Ser Gln Arg Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu
100 105 110
Gln Lys Val Lys His Tyr Leu Ile Leu Pro Ser Glu Asp Glu Gly Cys
115 120 125
Leu Tyr Phe Ser Met Asp Glu Gly Gln Thr Arg Phe Thr Asp Leu Leu
130 135 140

Gln Leu Val Glu Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu
145 150 155 160

Leu Arg His Cys Cys Ala Arg Val Ala Leu
165 170

<210> 28
<211> 182
<212> PRT
<213> mus muris

<400> 28
Ser Arg His Leu Arg Leu Ser Tyr Leu Gly Ser Pro Pro Leu Arg Ser
1 5 10 15

Val Ser Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly
20 25 30

Arg Val Ile Asp Asn Pro Arg Glu Ala Leu Ser Ala Ala Met Glu Glu
35 40 45

Ala Gln Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Thr
50 55 60

Trp Cys Ser Gly Ser Ser Leu Ser Ala Ala Ile His Arg Thr Gln Pro
65 70 75 80

Trp Phe His Gly Arg Ile Ser Arg Glu Glu Ser Gln Arg Leu Ile Gly
85 90 95

Gln Gln Gly Leu Val Asp Gly Val Phe Leu Val Arg Glu Ser Gln Arg
100 105 110

Asn Pro Gln Gly Phe Val Leu Ser Leu Cys His Leu Gln Lys Val Lys
115 120 125

His Tyr Leu Ile Leu Pro Ser Glu Asp Glu Gly Cys Leu Tyr Phe Ser
130 135 140

Met Asp Glu Gly Gln Thr Arg Phe Thr Asp Leu Leu Gln Leu Val Glu
145 150 155 160

Phe His Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu Leu Arg His Cys
165 170 175

Cys Ala Arg Val Ala Leu
180

B1